REMARKS UNDER 37 C.F.R. 1.111

Reconsideration and allowance are respectfully requested.

Each of the claims distinguishes the invention from the prior art.

None of the references considers, approaches or solves the prior art problem of creep.

Hutcheson covers but does not press a fabric into a plastic foil.

Ogden coats a fabric with a liquid barrier.

Singh impregnates fabric with a latex bonder in a completely different art.

No motivation arises in the references which would have suggested the present new solution to the problem of pressure induced creep.

Singh is for air permeable insoles and would have lead away from the present invention, and would have led away from combination with Hutcheson. The first words in Singh are "Air permeable". The latex hinder only serves to hold a mat of fibers together. Seeing that, one skilled in the art would have immediately turned away from Singh.

Ogden proposes an apertured top layer. Nothing in Ogden or Hutcheson would have suggested their combination.

Ogden's apertured top layer is intended to "limit movement of the foot and sock with respect to the insole" (column 1, line 3). Ogden uses a molded polyurethane as the cushioning layer (column 6, line 45+). A two-sided non woven layer is connected

to the aperture top layer. One side is wicking fibers, the second side is non absorbent fibers (column 6, line 25+). The barrier layer stops flow of liquid polyurethane into the two-sided layer during molding (column 6, line 40).

Ogden would have lead away from the present invention and from combination with Hutcheson.

Uniquely the invention solves two problems, first creep and second friction. No reference solves the first problem or the second problem.

Friction on the foot covering is bad. The invention solves that problem by partially pressing the creep-preventing fabric into the outer surface of the top foil and producing a surface with reduced friction.

Sliding of the bottom plastic foil in a show or boot (footwear) is bad. The invention solves that problem by pressing the creep-preventing fabric into the outer surface of the bottom foil and creating an outer surface with an increased friction on the lower foil.

Any one of those solutions would have been non obvious and patentable.

Claim 6 teaches the production of a liquid filled insole with increased strength. A liquid filled insole with two plastic layers is formed, a layer is heated, and a fabric is pressed into the molten surface of the layer. This increases the mechanical strength of the layer for reducing or eliminating creep.

The actual process is described in the specification. The fabric with reinforcing fibers is placed on an outer surface of a plastic layer. By applying pressure and heat, the fabric and fibers are pressed into the plastic layer in order to be confined in the layer when the layer is cold. The enclosure of the fabric stabilizes and strengthens the plastic layer such that creep is reduced or does not occur, in contrast to the insole by Hutcheson.

Concerning claim 6, Hutcheson does not teach heating the foil, pressing the fabric into the foil, and cooling the foil. This has also been acknowledged by the examiner in the office action.

The question is now, whether it would have been obvious at the time the invention was made for one of ordinary skill to have done what is described in claim 6. Hutcheson only teaches a gluing of a fabric onto the surface of the plastic insole. The problem solved by the invention is providing an increased tensile strength of the insole in order to reduce or prevent creep of the plastic foils during load. Hutcheson does not mention this problem and would therefore not give any indication for how to solve this problem.

In order to understand the problem more deeply, as described in the specification:

Fluid filled soles, like Hutcheson's suffer from the fact that the plastic layers under load are subject to creep, which makes the layers longer. It has to be realized that the pressure

on the insole is rather high, especially under running conditions. The result is that the plastic layers get longer and the sole does not keep its shape and becomes less shock absorbing. Usually, insoles of this kind last very short times when used.

On the road from the Hutcheson insole to the invention, the man skilled in the art as a first step would have had to realize that an insole is subject to creep due to structural changes caused by load. This subject has not been treated by Hutcheson.

As a second step, the man skilled in the art would have had to realize, that the problem may be solved by providing a stronger liquid filled insole. This step would not have been obvious, as a man skilled in the art has every other solution at his hand, for example providing insoles with polymer foam instead.

As mentioned, Hutcheson does not provide any hint for how to improve insoles concerning stability. The question is, where would a man skilled in the art get the necessary information? There are many disclosures of insoles and liquid filled insoles and many different directions may be followed. Thus, as a third step, the man skilled in the art would have had to realize that an improvement would have been gained from the disclosure by Ogden.

What would the man skilled in the art have learned from Ogden? Ogden teaches that a non-woven fabric 22 may be heat bonded or glued to a (top) layer (col. 12, lines 40-41) in order

to achieve a laminate. This heat bonding is achieved as explained in col. 11 line 62 to col. 12, line 4. Thus, the surface of the top layer is "softened to some extent" (col. 11, line 65) and bonds to the fibers. But Ogden's fibers are not pressed into the layer for enclosure. At this stage, the man skilled in the art as a fourth step would have had to use the teaching from Ogden in order to strengthen the layers in the liquid filled sole. However, he would not have achieved an insole as described by the method claim 6, because the fibers are not enclosed in the foil.

Alternatively, the man skilled in the art could have applied Ogden in an alternative way. He could have covered the non-woven fabric with a liquid polymer as explained in col. 13, line 4-7. The hardened liquid polymer would at least partly enclose the fabric. However, the liquid filled insole would not enclose the fabric, because the liquid filled insole cannot be applied to the fabric in a liquid state, because the outer layers of the liquid filled insole has to confine the liquid. The man skilled in the art would have ended up with a liquid filled insole as Hutcheson's, and a polymer enclosed fabric, where the liquid filled insole and the polymer enclosed fabric has to be bonded together afterwards. This could be done by heat bonding, where Ogden teaches, that the top layer is "softened to some extend" (col. 11, line 65) and bonds to the fibers. Also in Ogden the fibers are not pressed into the layer for enclosure.

Therefore, even if the man skilled in the art would have performed the steps above, including realizing the problem, finding the right source of information and applying this information, be would not have achieved the method according to claim 6 or an insole according to claim I by any combination of the teaching of Hutcheson and Ogden.

Therefore, the method, according to claim 6, and the insole, according to claim 1, would not have been obvious.

It has turned out that the insoles by the inventor are by far superior than any other kind of liquid filled insoles on the market. This is due to the fact that the lifetime of these insoles is far longer than for any other product of this kind. The result is that the insole according to claim 1 and produced according to claim 6 is becoming a commercial success. Thus, the invention fulfills a long felt need by potential users. This is an indication for the non-obviousness of the invention, because nobody has hitherto proposed an insole with superior properties according to claim 1.

There is no doubt that competitors will copy the product if no protection is achieved. In this light, a protection of this invention is vital in order to achieve the deserved payback after the rather large investment in experimental activities.

We therefore kindly ask the examiner to evaluate the invention once more in the light of the arguments above.

Respectfully,

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